

ABSTRACT

The present invention discloses a method and composition for the treatment of bacterial contamination of food by the use of a phage associated lysing enzyme, preferably blended with an appropriate carrier. The method for treating food stuffs comprises treating the food stuffs with an anti-infection agent comprising an effective amount of at least one lytic enzyme produced by a bacteria infected with a bacteriophage specific for the bacteria.. Additionally, chimeric lytic enzymes shuffled lytic enzymes, and holin proteins, either alone or in combination, may be used to treat or prevent bacterial contamination of foodstuffs. The lytic enzyme can be used for the treatment or prevention of various strains of *Staphylococcus*, *Streptococcus*, *Listeria*, *Salmonella*, *E. coli*, *Campylobacter*, *Pseudomonas*, *Brucella*, other bacteria, and any combination thereof. Feed for livestock, poultry and beef in slaughterhouses, canned and bottled goods, salad bars, and eggs are just some of the food items that can be treated with at least one lytic enzyme to reduce the risk of food contamination by bacteria.